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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/521,545	03/09/2000	Dale G. Swan	9896.145.0	2248

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EXAMINER

CELSA, BENNETT M

ART UNIT PAPER NUMBER

1639

DATE MAILED: 10/20/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

file copy

Office Action Summary

Application No.

09/521,545

Applicant(s)

Swan et al.

Examiner

Bennett Celsa

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1639

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Aug 12, 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 29, 31-51, and 60-74 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 29, 31, 32, and 48-51 is/are allowed.
- 6) ☒ Claim(s) 33-42, 60, and 67 is/are rejected.
- 7) ☒ Claim(s) 43-47, 61-66, and 68-74 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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DETAILED ACTION

Response to Amendment

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Status of the Claims

Claims 29, 31-51 and 60-74 are currently pending and under consideration..

Election/Restriction

2. Applicant's election of Group I (claims 1-10) in Paper No. 9 (dated 7/13/01) is again acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Applicant's further election of the compound $\text{CH}_2=\text{CH}(\text{CH}_3)-\text{C}(=\text{O})-\text{O}-\text{CH}_2-\text{CH}-\text{O}-\text{CH}_2$ in Paper No. 13 (dated 10/15/01) is again acknowledged.

Withdrawn Objection (s) and/or Rejection(s)

Applicant's arguments and amendment directed to the rejection of claims 1, 5, 8-10, 42, 48, 50, 52, 60 and 67 under 35 U.S.C. 103(a) as being unpatentable over Duran et al. US Pat. No. 5,858,653 (1/99: filed 9/97) and Shi et al. US 5,919,626 (7/99: filed 6/97) were considered and deemed persuasive.

Applicant's arguments and amendment directed to the rejection of claims 1, 5, 8-10, 33-42, 48, 50, 52, 60 and 67 under 35 U.S.C. 103(a) as being unpatentable over Duran et al. and Shi et al. as applied to claims 1, 5, 8-10, 42, 48, 50, 52, 60 and 67 above, and further in view of

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specification admission as to prior art on page 13 regarding publicly available diepoxide sepharose gel beads for binding nucleotides were considered and deemed persuasive..

Applicant's arguments and amendment directed to the rejection of claims 1-3, 5-9, 29, 31-32 and 42-74 under 35 U.S.C. 103(a) as being unpatentable over Duran et al. and Shi et al. as applied to claims 1, 5, 8-10, 42, 48, 50, 52, 60 and 67 above, and further in view of Kalal et al. US Pat. No. 4,332,694 (1/82) were considered and deemed persuasive.

Applicant's amendment canceling claims 1-3, 5-8 and 52-57 has overcome the rejections:

- a. of claims 1-3, 5-8 and 52-57 under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kalal et al. US Pat. No. 4,332,694 (1/82);
- b. of claims 1-3, 5-8 and 52-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kalal et al. US Pat. No. 4,332,694 (1/82) and Shi et al. US 5,919,626 (7/99: filed 6/97)..

Applicant's argument directed to the rejection of claims 1-3, 5-9, 29, 31-32 and 42-74 under 35 U.S.C. 103(a) as being unpatentable over Kalal and Shi as applied to claims 1-3, 5-8 and 52-57 above, and further in view of Swanson et al. US Pat. No. 5,942,555 (8/99: filed 3/96) was considered and deemed persuasive.

Priority

3. Applicant's arguments directed to claiming 35 USC 120 priority of claims 29, 31-51 and 60-74 the present application (09/521,545 filed 3/9/2000) as a CIP application to:

- a. 09/227,913 (1/8/99) (US Pat. No. 6,465,178) or
- b. 08/940,213 (9/30/97) (US Pat. No. 5,858,653)

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is hereby granted in response to applicant's arguments and amendment.

Outstanding Objection (s) and/or Rejection (s)

4. Claims 42, 60 and 67 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-16 (especially claims 1, 8, 9 and 16) of U.S. Patent No. 6,465,178 (10/02). Although the conflicting claims are not identical, they are not patentably distinct from each other because the patent claims teach copolymers that comprise hydrophilic monomers (e.g. acrylic); pendent photoreactive groups (e.g. aryl ketones ie. for substrate covalent attachment) and a markush of thermochemical reactive groups, which can effect "target" (e.g. DNA) attachment, which include epoxides the selection of which would have been obvious due to its preferred (claim) status.

5. Claims 33-41 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-16 (especially claims 1, 8, 9 and 16) of U.S. Patent No. 6,465,178 (10/02) in view of the specification admission as to prior art on page 13 regarding publicly available diepoxide sepharose gel beads for binding nucleotides .

The patent claims teach copolymers that comprise hydrophilic monomers (e.g. acrylic); pendent photoreactive groups (e.g. aryl ketones ie. for substrate covalent attachment) and a markush of thermochemical reactive groups, which can effect "target" (e.g. DNA) attachment, which include epoxides the selection of which would have been obvious due to its preferred (claim) status.

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The Patent claims differ from present claims 33-41 by failing to specifically teach the use of a pendent diepoxide instead of a pendent epoxide for binding a target (e.g. a nucleotide).

However, diepoxide instead of epoxide pendent modification would have been obvious due to the known modification of sepharose gel beads with diepoxides (e.g. Sigma) for use in binding oligonucleotides; thus ensuring functionally equivalent and a reasonable expectation of success. See specification prior art admission.

Discussion

In response to the above double patenting rejections, applicant deferred filing a terminal disclaimer until the indication of allowable subject matter.

Allowable Subject Matter

6. Claims 29, 31-32, 48-49 and 50-51 are allowable over the prior art of record since the prior art fails to disclose or suggest the presently claimed reagent composition components in their requisite amounts.

7. Claims 43-47, 61-66 and 68-74 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

General information regarding further correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Celsa whose telephone number is (703) 305-7556.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew J. Wang (art unit 1639), can be reached at (703)306-3217.

Any inquiry of a general nature, or relating to the status of this application, should be directed to the Group receptionist whose telephone number is (703) 308-0196.

Bennett Celsa (art unit 1639)

October 16, 2003

**BENNETT CELSA
PRIMARY EXAMINER**


